DOCUMENT RESUME

ED 112 450 CS 501 126

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TITLE A Survey of the Research on Sex Differences in Nonverbal Communication.
PUB DATE 75
NOTE 13p.; Paper presented at the 1975 Summer Conference of the Speech Communication Association

EDRS PRICE MF-$0.76 HC-$1.58 Plus Postage
DESCRIPTORS Behavior; Body Language; Communication (Thought Transfer); Individual Differences; *Nonverbal Communication; Psychological Patterns; *Sex Differences

ABSTRACT

Although the bulk of recent research on nonverbal communication has involved studies of the functions of nonverbal behavior (emotion conveying, regulation, and adaption), a few studies have focused on the differences in nonverbal communication variables between men and women. These differences have been found in vocal patterns, intensities, length of speaking turn, eye gazing and contact, amount and timing of smiling behavior, posture and movement, spacing, and the amount, initiation, and area of touching. In addition, the same or similar nonverbal behaviors may be given different meanings by observers, as in vocal patterns, the smiling behavior of parents, and eye behavior. If future studies confirm that sex is a significant variable in nonverbal communication, sex should be a consistent component of further research design, teachers should be aware of the differences in a classroom context, and women and men may want to acquire new nonverbal behaviors to expand their repertoire of communication. (Two charts are included, one on simulated vocal cues and personality types and one on touching.) (JM)

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A SURVEY OF THE RESEARCH ON SEX DIFFERENCES IN NONVERBAL COMMUNICATION

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Introduction

One of my mother's favorite admonitions to me as a teenager was "sit up like a lady." The body position which she desired me to emulate like the way one holds a cigarette or handles a handshake was an example of a nonverbal behavior which had been sex-role stereotyped. We are quick to notice when someone violates these norms for their sex--"she walks like a man," or "he exhibits effeminate behavior." Still there are many other differences in the manner which both sexes nonverbally communicate which are not as obvious as these sex-role stereotyped behaviors. This paper will survey the contemporary research on these less obvious differences in nonverbal communication. The paper will include both the research on the observable differences in men and women's nonverbal communication and differences in perception or evaluation when men and women are engaged in the same behaviors. The paper will conclude with implications for speech communication research and teaching as well as for the society as a whole.

The Research

The past fifteen years have seen a tremendous upsurge in the amount of research on nonverbal communication. With the exception of the study of proxemics and eye contact, however, little attention has been given to the differences in nonverbal message sending and receiving by men and women. Instead the bulk of nonverbal communication research has revolved around study of the functions of nonverbal behavior--emotion conveying, regulation, and adaptation--and attempts to delineate the structure of nonverbal communication.

Consequently, in this review only one or two studies of a particular communication variable may be sighted. Also, it is clear that variables

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such as degree of friendship, age, and self-image interrelate with sex to alter or eliminate observable sex differences. These factors are frequently controlled by use of subjects who are strangers and of the same (college) age. This, however, tells us little about the sex differences under a variety of conditions and within a wide spectrum of interpersonal relationships. Therefore, the conclusions drawn in this review can only be considered tentative probes with limited application. One final limitation, most research on sex differences has been conducted with white middle class Americans. Consequently, this review is restricted to that culture.

Given these limitations there is still interesting research to be examined. The paper will include studies of sex differences in paralinguistics, facial communication, body movement, proxemics, and touch.

Paralinguistics

Research on paralinguistic behavior of men and women has revealed four areas of sex related differences in vocal patterns: intonation, voice intensity, speaking length and the presence of filled pauses. Some very definite preferences in the general usage of intonation patterns have been shown for each sex in research by Brend.[1] For instance, men avoid final patterns which do not terminate at the lowest level of pitch, while women use many so called "incomplete" final patterns which end at higher pitches. Ending at a low pitch gives a sense of finality, while ending at a higher pitch makes a declarative statement sound like a question. There may be some connection between this paralinguistic difference and the finding by linguists that women more than men tend to use a tag question (Okay?, Right?) at the end of statements and tend to give declarative answers which end in rising inflection (Male: What time will you be ready? Female: six o'clock . . .?)[2] Men and women have also been shown to differ in the production of whispered vowel sounds and some voiceless fricatives.[3]

There has been one study of sex differences in vocal intensity. It indicates that both the sex of the sender and receiver influence the speaker's intensity. Although men are on the whole more vocally intense then women, both sexes tend to decrease their intensity when speaking to someone of the same sex and increase it for the opposite sex -- a finding which may relate to the tentative conclusion that intensity decreases with affiliation. The cross sex variation is such that both sexes have about the same intensity when speaking to men, but men are much more intense with women than women are with women.[4]

The final two aspects of vocal pattern differences have been shown in a laboratory study by Beekman. First, contrary to popular myths about the talkative female, this study indicated that men tended to speak longer than women each time they got the floor in a conversation. Second the researcher found a highly significant tendency for men to use more filled pauses (ah, umh, er) than women.[5] Filled pauses may be the means by which men are able to maintain a longer speaking turn even if they momentarily have nothing to say.

Even when men and women engage in the same paralinguistic behavior they may be evaluated differently. Substantial research in the 1930's and 40's indicated that the voice provides significant cues for the formation of judgments about the speaker's personality. Recent work by Addington indicated that sex of the speaker is a key factor in the stereotyping process. Listeners reported significantly different stereotypes for male and female voices simulating the identical vocal characteristics. An example of the differences: tension in a male voice elicited the stereotype of someone older, more unyielding and cantakerous, while tension in the female voice elicited a stereotype of one young, more emotional, feminine, high-strung, and less intelligent.[6] See Chart I for a complete summary.

CHART I

SIMULATED VOCAL CUES AND PERSONALITY STEREOTYPES

Simulated vocal cues*	Speakers	
Breathiness	Males	Younger; more artistic
	Females	More feminine; prettier; more petite; more effervescent; more highly strung; and shallower
Thinness	Males	Did not alter listener's image of the speaker; no significant correlations
	Females	Increased social, physical, emotional, and mental immaturity; increased sense of humor and sensitivity
Flatness	Males	More masculine; more sluggish; colder; more withdrawn
	Females	More masculine; more sluggish; colder; more withdrawn
Nasality	Males	A wide array of socially undesirable characteristics
	Females	A wide array of socially undesirable characteristics
Tenseness	Males	Older; more unyielding; cantankerous
	Females	Younger; more emotional, feminine, high strung; less intelligent
Throatiness	Males	Older; more realistic, mature; sophisticated; and well adjusted
	Females	Less intelligent; more masculine; lazier; more boorish, unemotional, ugly, sickly, careless, inartistic, naive, humble, neurotic, quiet, uninteresting, apathetic. In short, "cloddish or oafish" (Addington)
Orotundity	Males	More energetic, healthy, artistic, sophisticated, proud, interesting, enthusiastic. In short, "hardy and aesthetically inclined." (Addington)
	Females	Increased liveliness, gregariousness, aesthetic sensitivity, and "increasingly proud and humorless" (Addington)
Increased Rate	Males	More animated and extroverted
	Females	More animated and extroverted
Increased Pitch Variety	Males	More dynamic, feminine, aesthetically inclined
	Females	More dynamic and extroverted

*For descriptions of these cues, see P. Heinberg, Voice Training for Speaking and Reading Aloud (New York: Ronald Press, 1964): 152-81.

Facial Communication

Most research on facial communication differences between the sexes is related to eye contact and gazing. There are, however, two studies of differences related to smiling. Beekman's research indicates that women tend to smile and laugh more than men during laboratory conversations. Women smiled either to meet role expectations or to cover-up uncomfortable feelings rather than out of genuine feelings of liking (tests of affiliativeness were given which lent support for this assumption.) Men who did smile did so only after they felt comfortable and generally to express affiliative tendencies.[7] Another study shows that smiles are perceived differently by children depending upon which parent smiles. Children perceive smiles from fathers as reinforcement of positive messages, but smiles from mothers do not carry the same reinforcement value.[8]

At least five observable sex differences appear in the study of eye behavior. Infact, according to one of the key eye contact researchers, Exline, sex is the most powerful single variable.[9] Numerous studies have indicated that women spend more time gazing at their partner than do men.[10] Women also have a higher percentage of mutual gazing--eye contact--than men.[11] Women tend to look at a well-liked other more while speaking while men look at a well-liked other more while listening.[12] Men tend to gaze more as distance between themself and the partner increase, women gaze less as the distance increases.[13] This, of course, helps to minimize the opportunity for eye contact across the sexes. Finally, in a positive exchange men tend to decrease eye contact as time goes on and women tend to increase it.[14]

Two studies indicate that even though men and women might use the same eye contact pattern they may be evaluated differently. Mehrabian and Williams found that at relatively great distances less eye contact from a male and more From Female was perceived as more persuasive.[15] In another study with mixed-sex dyads men

who were told their partner's gaze was higher than usual had a least favorable evaluation of their female partner, while women who were told their partner's gaze was higher than usual had a most favorable evaluation of their male partner.[16] No same-sexed dyads were studied to indicate if both sexes would be similar in their differential evaluations.

Men and women also have different facial communication options available to them which may allow for perception of different personality stereotypes. Man may grow beards, an option not open to most women, and beardedness in a study by Pellegrini was shown to influence the observers evaluation of the males personality.[17] Women may wear lipstick and other cosmetics, an option seldom shared by men. While there is no current research on the impact of women's cosmetics as a form of communication, a study in 1955 indicated that makeup does influence personality stereotyping.[18]

Body Movement and Posture

Limited research indicates that both the normal posture taken by men and women and the shifting posture of both sexes differ. Mehrabian concluded that in a social situation men tend to assume a more relaxed posture (arm and leg asymmetry, arm openness, greater sidewize lean, higher gesticulation and rocking, and less trunk swivel) than do women regardless of the sex of the partner.[19] Males shift their legs and seating position more during a conversation than do women.[20] Movement and posture in the laboratory setting have been shown to be a function of the sex of both communicators with opposite-sexed partners more relaxed than same sexed partners.[21]

Proxemics

Since 1955 when Edward Hall demonstrated that people follow culturally determined rules in spacing themselves during conversation research has been undertaken to determine if men and women in the same culture might learn

different rules for spacing. Although inconsistencies in measuring the exact distance between people and in indicating the influence of friendship on these distances exist, numerous studies show that women assume closer positions to one another than do men,[22] and that women are approached by both sexes much more closely than are men.[23] These differences studied primarily with standing subjects have also been shown in one study of seated subjects.[24] Other research indicates that these differences begin to appear by age six and are fully developed by the age of twelve.[25] These readily observable findings may be related to indications that both sexes are more leary of the approach of men than women,[26] and that women perceive their "territory" as smaller and more subject to influence than do men.[27]

Body angle and seating choice differences between men and women have also been identified in proxemics studies. The previously mentioned study of proxemic development in children indicated that girls at age twelve and older had more direct body angle to their partners than boys.[28] Adult women in a study by Mehrabian were observed to face their partners at the same ages more directly when the partner was well liked, while men faced the disliked partner more directly.[29] In his seating behavior research Cook found some seating choices influenced by a combination of degree of friendship and sex.[30]

Touch

It has been observed that touching in this culture is "equated with sexual intent, either consciously, or at a less-conscious level."[31] It is not surprising, therefore, that considerably more touching is reported between individuals of the two sexes then between same-sexed individuals. One study of this between sex touching indicates that males more frequently initiate touching in a social situation.[32] Another study of touching

between sexes and among the same sex indicates that women are touched more than men by parents, same sexed friends and opposite sexed friends.[33] Perhaps because touching is related to sexual intent the areas of the body where men and women were touched differed (Chart II). Two studies indicate that differences in the amount of touching begin at age six months.[34]

CHART II

WHO TOUCHES WHOM, WHERE

The chart shows the data gathered by Sidney Jourard on a group of U.S. college students. Most students, men and women, reported hand contact with both mother and father and best friends of the same and opposite sex. Beyond that, however, sharp differences exist in who touches whom where.

	MALES TOUCHED BY:				FEMALES TOUCHED BY:			
On:	Mother	Father	Girl Friend	Boy Friend	Mother	Father	Girl Friend	Boy Friend
1. Top of head	Many	Some	Some	Most	Most	Many	Many	Most
2. Face	Many	Some	Few	Most	Many	Many	Some	Most
3. Neck	Many	Some	Some	Most	Many	Many	Some	Most
4. Shoulders	Many	Some	Many	Most	Many	Many	Some	Most
5. Upper arm	Many	Many	Many	Most	Most	Many	Many	Most
6. Lower arm	Many	Many	Many	Most	Most	Many	Most	Most
7. Hand	Most	Most	Most	Most	Most	Most	Most	Most
8. Chest	Some	Few	Some	Most	Few	Few	Few	Many
9. Stomach	Some	Few	Some	Most	Few	Few	Few	Many
10. Pelvic area	Few	Few	Few	Many	Few	Few	Few	Some
11. Upper leg	Few	Few	Some	Many	Few	Few	Few	Many
12. Knee	Few	Few	Some	Many	Many	Few	Few	Most
13. Lower leg	Some	Few	Some	Many	Many	Few	Few	Many
14. Foot	Some	Few	Some	Many	Many	Few	Some	Many

The terms Few, Some, Many, and Most reflect ranges of percentages: Few, 0-25% reported such contact; Some, 26-30%; Many, 51-75%; and Most, 76-100%.

Summary of the Sex Differences

Given the same interpersonal setting men and women will make nonverbal responses which differ in many ways, different: vocal patterns; intensities; length of speaking turn; eye gazing and contact; amount and timing of smiling behavior; posture and movement; spacing; and amount, initiation, and area of touching. Even when men and women engage in the same or very similar

nonverbal behaviors those same acts may be given different meanings by observers. The research indicates that this is the case at least for vocal patterns, smiling behavior of parents, and eye behavior.

Why these sex differences exist is yet a matter of speculation. Birdwhistell argues that men and women are so much alike physically (weakly dimorphic) as compared to some other species that humans need to take on behaviors which would distinguish the sexes.[35] Another explanation for the nonverbal sex differences is that men and women are simply behaving in ways that match their sex-role stereotyping.[36] The laughing, smiling, eye gazing, close proxemity, and touch behavior of women may be ways of showing affiliation which is part of women's sex-role stereotype. Men's communication by a more relaxed posture, initiating touching, greater vocal intensity, and longer speaking turns suggests the assertiveness which is a part of men's sex-role stereotype.

Implications

Whatever the reason for the existence of these sex differences in nonverbal communication there are several important implications for speech communication research and teaching, and for the society as a whole. First, for research, if the differences indicated in this review are confirmed by future studies, sex will be shown as a significant variable in nonverbal communication and consistently should be a part of research design. In teaching, it is imperative that we become cognizant of the sex differences. The issue is how to bring our awareness into the classroom. If we are teaching communication skills, do we teach some different skills for men and women? After all there are indications in this research that for men and women to be perceived most favorably and with most influence their eye contact and vocal patterns will have to be different. Should we

encourage men to communicate nonverbally as women do (which I think in part can happen through sensitivity training) with the hope that they will be perceived as more affiliative rather than as effeminate? Should we teach women to communicate nonverbally as men do (part of the effort of assertive training for women) with the hope that they will be perceived as assertive and not aggressive (castrating).

Finally, the implication for the society as a whole. It seems clear that if the androgynous society is to be attained (should it be desirable) it will require more than changing women's legal, economic, and social status and her sexual consciousness. At some point, either men and women will both need to acquire new nonverbal behaviors to expand their repertoire of communication to include each other's approaches or they will have to learn to be knowledgeable, accepting and pleased with their nonverbal differences.

FOOTNOTES

[1]Ruth M. Brend, "Male-Female Intonation Patterns in American English," Proceedings of the Seventh International Congress of Phonetic Sciences, Paris: Mouton, 1972, pp. 866-870.

[2]Robin Lakoff, "Language and Woman's Place," Language and Society, April 1973, pp. 55-56.

[3]Martin F. Schwartz and Helen E. Rine, "Identification of Speaker Sex from Isolated Whispered Vowels," Acoustical Society of America Journal, 44 (1968), 1736-1737.

[4]Norman Markel, Layne D. Prebor and John Brandt, "Biosocial Factors in Dyadic Communication: Sex and Speaking Intensity," Journal of Personality and Social Psychology, 23 (1972), 13.

[5]Susan J. Beekman, "Sex Differences in Nonverbal Behavior," unpublished paper, 1973, pp. 10-11.

[6]David Addington, "The Relationship of Selected Vocal Characteristics to Personality Perception," Speech Monographs, 35 (1968), 499-502.

[7]Beekman, pp. 13-14.

[8]Daphne E. Bagental, Leorne R. Love, and Robert Gionetto, "Perfidious Feminine Faces," Journal of Personality and Social Psychology, 17 (1971), 314-318.

[9]Ralph V. Exline, "Explorations in the Process of Person Perception: Visual Interaction in Relationship to Competition, Sex, and Need for Affiliation," Journal of Personality, 31 (1963), 1-20.

[10]Ralph V. Exline, David Gray and Dorothy Schuette, "Visual Behavior in a Dyad as Affected by Interview Content and Sex of Respondent," Journal of Personality and Social Psychology, 1 (1965), 201-209. Michael Argyle, The Psychology of Interpersonal Behavior, Baltimore: Penguine Books, 1967, p. 115. Marion Heineman Levine, "The Effect of Age, Sex, and Task on Visual Behavior During Dyadic Interaction," Unpublished Ph. D. dissertation, Columbia University, 1972.

[11]William L. Libby, "Eye Contact and Direction of Looking as Stable Individual Differences," Journal of Experimental Research in Personality, 4 (1970), 303-312.

[12]Ralph V. Exline and L. C. Winter, "Affective Relations and Mutual Glances in Dyads," in Affect, Cognition, and Personality, edited by S. S. Tomkins and C. E. Izard, New York: Springer, 1965.

[13]John R. Aiello, "Male and Female Visual Behavior as a Function of Distance and Duration of an Interviewer's Direct Gaze: Equilibrium Theory Revisited," unpublished Ph. D. dissertation, Michigan State University, 1972.

[14]Exline and Winter.

[15]Albert Mehrabian and M. Williams, "Nonverbal Concomitants of Perceived and Intended Persuasiveness," Journal of Personality and Social Psychology, 13 (1969), 37-58.

[16]Chris L. Kleinke, Armondo Busto, Federick Meeker, and Richard Staneski, "Effects if Self-Attributed and Other-Attributed Gaze on Interpersonal Evaluations Between Males and Females," Journal of Experimental and Social Psychology, 9 (March 1973), 154-163.

[17]Robert Pellegrini, "Impression of the Male Personality as a Function of Beardedness," Psychology, A Journal of Human Behavior, 10 (1973), 29-33.

[18]Paul F. Secord, "Personality in Faces: IV. Descriptive Analysis of the Perception of Women's Faces and the Identification of Some Physiognomic Determinants," Journal of Psychology, 39 (1955), 269-278.

[19]Albert Mehrabian, "Significance of Posture and Position in the Communication of Attitude and Status Relationships," Psychological Bulletin, 71 (1966), 359-372.

[20]Beekman, p. 16.

[21]Albert Mehrabian and J. T. Friar, "Encodong of Attitude by a Seated Communication Via Posture and Position Cues," Journal of Consulting and Clinical Psychology, 33 (1969), 330-336.

[22]James C. Baxter, "Interpersonal Spacing in Natural Settings," Sociometry, 33 (1970), 444-456.

[23]Frank Willis, "Initial Speaking Distance as a Function of the Speaker's Relationship," Psychonomic Science, 5 (1966), 221-222. Darhl M. Pedersen and Anne B. Heaston, "The Effects of Sex of Subject, Sex of Approaching Person, and Angle of Approach Upon Personal Space," Journal of Psychology 82 (1972), 277-286. Stanley Heshka and Yona Nelson, "Interpersonal Speaking Distance as a Function of Age, Sex, and Relationship," Sociometry, 35, (1974), 92-104. R. Sommer, "Studies in Personal Space," Sociometry, 22 (1959), 247-260.

[24]Teresa J. Rosegrant and James C. McCroskey, "The Effect of Race and Sex on Proxemics Behavior in an Interview Setting," Southern Speech Communication Journal, 40 (Summer, 1975), 408-420.

[25]John R. Aiello and Tryra De Carlo Aiello, "The Development of Personal Space: Proxemic Behavior Of Children 6 through 16," Human Ecology, 2 (1974), 177-188.

[26]Hurbert Petri, Richard Huggins, Carol Mills, and Linda Barry, "Variable Influencing the Shape of Personal Space," paper delivered at the American Psychological Association Convention, New Orleans, August, 1974.

[27]Julian J. Edney and Nancy L. Jordon-Edney, "Territorial Spacing on a Beach," Sociometry, 37 (1974), 92-104, (females in groups have smaller territories than males). J. L. Freedman, "The Crowd: Maybe Not so Maddening After All," Psychology Today, 4 (1971), 58-61, 86, (women are less negatively influenced by crowds).

[28]Aiello and Aiello.

[29]Albert Mehrabian, "Relationship of Seated Posture, Orientation, and Distance," Journal of Personality and Social Psychology, 10 (1968), 26-30.

[30]Cook, "Experiments on Orientation and Proxemics," Human Relations, 23 (1970), 61-76.

[31]Sidney M. Jourard and J. E. Rubin, "Self-disclosure and Touching: A Study of Two Modes of Interpersonal Encounter and Their Interrelation," Journal of Humanistic Psychology, 8 (1968), 39-48.

[32]Nancy M. Henley, "Status and Sex: Some Touching Observations," Bulletin of the Psychonomic Society, 2 (1973), 91-93.

[33]Sidney Jourard, "An Exploratory Study of Body-Accessibility," British Journal of Social and Clinical Psychology, 5 (1966), 222-231.

[34]V. S. Clay, "The Effect of Culture on Mother-Child Tactile Communication," Family Coordinator, 17 (1968), 204-210. S. Goldberg and M. Lewis "Play Behavior in the Year-Old Infant: Early Sex Differences," Child Development, 40 (1969), 21-31.

[35]Ray L. Birdwhistell, Kinesics and Context: Essay on Body Motion Communication, Philadelphia: University of Pennsylvania Press, 1970, p. 42.

[36]Nancy M. Henley, "Power, Sex, and Nonverbal Communication," Berkeley Journal of Sociology, 18 (1973-74), 1-26. And Beekman.